CON EDISON – NEWTOWN SUBSTATION (DAR SITE ID #5)

Address:	33-17 47th Avenue, Queens, New York, 11101 (33-17 47th Avenue, Long Island City)
Tax Lot Parcel(s):	Queens Block 3363, Lot 1
Latitude:	40.742981
Longitude:	-73.931553
Regulatory Programs/ Numbers/Codes:	USEPA ID No. NYR000146043, NYSDEC Spills No. 8908620, 0305303, 0705084, 0712082, 0712533, 0801977, 0807861, 0912835, and 0810049, PBS No. 2-476889
Analytical Data Status:	☐ Electronic Data Available ☒ Hardcopies Only ☐ No Data Available

1 SUMMARY OF CONSTITUENTS OF POTENTIAL CONCERN (COPCs) TRANSPORT PATHWAYS TO THE CREEK

The current understanding of the transport mechanisms of COPCs from the upland portions of the Con Edison – Newtown Substation site (site) to Newtown Creek is summarized in this section and Table 1 and supported in the following sections.

Overland Transport

The site is located approximately 0.35 mile from Newtown Creek and associated waterways. This is not a complete historical or current pathway.

Bank Erosion

The site is not adjacent to Newtown Creek or associated waterways. This is not a complete historical or current pathway.

Groundwater

Groundwater quality information for this site was not identified in documents available for review. The site is located approximately 0.35 mile from Newtown Creek and associated waterways. There is insufficient evidence to make a historical or current pathway determination.

Overwater Activities

This site is not adjacent to Newtown Creek or associated waterways and has no overwater activities. This is not a complete historical or current pathway.

Stormwater/Wastewater Systems

Information regarding on-site stormwater infrastructure and management was not identified in files available for review. The site is within the Bowery Bay Water Pollution Control Plant (WPCP) sewershed. Stormwater and wastewater discharges from the site flow into a combined municipal sewer system. When the combined flows exceed the system's capacity, untreated combined sewer overflows (CSOs) are discharged through Outfall BB-026 to Dutch Kills, a tributary to the Newtown Creek study area (NYCDEP 2007). There is insufficient evidence to make a historical or current pathway determination for direct discharge of stormwater, wastewater, and sewer/CSO.

Air Releases

Information regarding site air discharges was not identified in documents available for review. There is insufficient evidence to make a historical or current pathway determination.

2 PROJECT STATUS

The U.S. Environmental Protection Agency (USEPA) listed the site as a Resource Conservation and Recovery Act (RCRA) large quantity generator (LQG) on September 11, 2008 (USEPA 2011). No other information regarding the regulatory status of the site is available.

3 SITE OWNERSHIP HISTORY

Respondent Member: ☐ Yes ☒ No

Owner	Years	Occupant	Types of Operations
Unknown	circa 1947	Auto parts storage, sheds	Unknown
32nd Place Realty Corp.	1956 – unknown	Unknown	Unknown

Owner	Years	Occupant	Types of Operations
Leaseway of New York, Inc. (formerly Arista Truck Renting Corp.)	Unknown -1970	Leaseway of New York, Inc. (formerly Arista Truck Renting Corp.)	Truck leasing
Transportation House, Inc. (also known as Leaseway Motorcar Transport Company)	1970 – 2003	Transportation House, Inc. (Leaseway Motorcar Transport Company)	Truck leasing
Penske Truck Lease Co.	2003 – 2006	Penske Truck Lease Co.	Truck leasing
Consolidated Edison Company of New York, Inc. (Con Edison)	2006 – present	Con Edison	Electrical substation

Note:
Con Edison - Consolidated Edison Company of New York, Inc.

4 PROPERTY DESCRIPTION

The property occupies approximately 0.9 acre located at 33-17 47th Avenue in the borough and county of Queens in New York City, New York (see Figure 1). The property is currently the location of a Consolidated Edison Company of New York, Inc. (Con Edison) electrical substation. The site is at approximately 40 feet above mean sea level and slopes westward toward Dutch Kills, located approximately 0.4 mile to the south west. According to GIS data provided by New York City, the site lies within the drainage area of CSO Outfall BB-026, which discharges at the head of Dutch Kills. The property is physically separated from Dutch Kills by anthropogenic infrastructure, including buildings and roads. Structures on the property include a building that comprises the entire parcel. The property lies within an area zoned as Manufacturing District, or M1-4 (NYCDCP 2011a). M1 districts are designated for areas with a significant number of residential buildings (NYCDCP 2011b).

Figure 1 includes an aerial photograph of the site, indicating the current site layout, existing building, and adjacent infrastructure.

5 CURRENT SITE USE

The site is currently used by Con Edison as an electrical substation.

6 SITE USE HISTORY

In the late 1940s, the site contained sheds on 33rd Street and an auto parts storage building near the corner of 47th Avenue and 34th Street. "Auto grease," "parts storage," and "auto laundry" buildings were located on the north end of the property but may be part of the adjacent lot (Sanborn 1949).

From at least the 1970s through the 2000s, the site was used to lease trucks (Leaseway of New York, Inc. 1970; Leaseway Motorcar Transport Company 2003). Petroleum spills in 1989 and 2003 affected groundwater in the area.

In 2006, Con Edison purchased the site to build an electrical substation. The substation began providing electricity in April 2010 to more than 36,000 customers in the Queens area. Architects designed the substation to save energy, reduce carbon dioxide (CO_2) emissions and improve water efficiency (Con Edison 2011a).

7 CURRENT AND HISTORICAL AREAS OF CONCERN AND COPCs

The current understanding of the historical and current potential upland and overwater areas of concern at the site is summarized in Table 1. The following sections provide brief discussions of the potential sources and COPCs at the site.

7.1 Uplands

The EDR DataMap™ Environmental Atlas™ Universal Waste Summary classifies the site as a RCRA LQG of hazardous waste (EDR 2010). Historically, the site was an LQG in 1990 but not a generator in 1999 and 2006. Available hazardous waste manifest documentation indicates that the facility has shipped non-listed ignitable wastes (D001), corrosive hazardous wastes (D002), lead (D008), mercury (D009), and benzene (D018). No other information related to waste generation was located.

Thirteen underground storage tanks (UST), closed prior to March 1991, were identified as on site under Petroleum Bulk Storage (PBS) No. 2-476889, as summarized in the following table (NYSDEC 2012):

Tank ID	Date Installed	Tank Status	Tank Location	Capacity (gallons)	Product
001	NR	Closed prior to 03/91	UST	550	Other
002	NR	Closed prior to 03/91	UST	550	Other
003	NR	Closed prior to 03/91	UST	550	Other
004	NR	Closed prior to 03/91	UST	550	Other
005	NR	Closed prior to 03/91	UST	550	Other
006	NR	Closed prior to 03/91	UST	550	Other
007	NR	Closed prior to 03/91	UST	550	Other
009	NR	Closed prior to 03/91	UST	550	Other
010	NR	Closed prior to 03/91	UST	550	Other
011	NR	Closed prior to 03/91	UST	3,000	Gasoline
012	NR	Closed prior to 03/91	UST	1,000	Other
013	NR	Closed prior to 03/91	UST	1,000	Other

Notes:
NR – not reported
UST – underground storage tank

7.2 Overwater Activities

This site is not adjacent to Newtown Creek or associated waterways and has no overwater activities.

7.3 Spills

Documented spills at the site are summarized as follows:

NYSDEC Spill No.	Spill Date	Close Date	Material Spilled	Remarks
8908620	12/30/89	12/4/03	Gasoline	Discovered contaminated soil during removal of tank
0305303	8/13/03	Not Closed	#2 fuel oil; Petroleum hydrocarbons	
0705084	8/3/07	9/6/07	Unknown petroleum	Spill on adjacent property may have traveled to site; high concentration of BTEX found in soil at depth of 29-31 feet below grade at boring location GT-7

NYSDEC Spill No.	Spill Date	Close Date	Material Spilled	Remarks
8908620	12/30/89	12/4/03	Gasoline	Discovered contaminated soil during removal of tank
0712082	02/15/08	08/18/09	Unknown petroleum	Approximately 2 gallons discovered during excavation
0712533	02/28/08	06/17/08	Hydraulic oil	1 gallon spill to soil due to equipment failure
0801977	05/20/08	08/05/08	Hydraulic oil	Unknown quantity spilled to soil due to equipment failure
0807861	10/13/08	08/05/09	Unknown	Unknown material found in soil during excavation
0810049	12/09/08	03/09/09	Hydraulic oil	Unknown quantity (reported as about a pint) spilled to soil due to broken line on vehicle
0912835	03/10/10	06/21/10	Dielectric fluid	1 gallon (5 drops per minute) spilled due to equipment failure

Notes:
Information gathered from the EDR DataMap Environmental Atlas (EDR 2010)
NYSDEC – New York State Department of Environmental Conservation

8 PHYSICAL SITE SETTING

No site-specific geologic or hydrogeologic information is available for the site. The following information is based on regional conditions in the Brooklyn and Queens areas.

In general, the geologic setting of Newtown Creek area consists of Quaternary glacial deposits overlying Paleozoic gneiss and schist bedrock (Misut and Monti 1999). The contact between the glacial deposits and bedrock slopes rather steeply to the southeast, ranging in depth from less than 50 feet below ground surface (bgs) near the mouth of Newtown Creek to more than 200 feet bgs at the eastern portions of the historical data review area. The near-surface geology is of most interest relative to potential groundwater transport pathways from upland sites to the creek. In most areas, a heterogeneous anthropogenic fill unit of variable thickness (generally less than 20 feet thick) immediately underlies the surface. Complex upper glacial deposits of Late Pleistocene age—consisting of ablation till, outwash, and glaciolacustrine sediments—are present beneath the fill in most areas. In some areas near Newtown Creek, a shell-bearing gray silt unit is present beneath the fill; this silt may

represent post-glacial intertidal sediments deposited in wetlands adjacent to the creek prior to filling in the 1800s. An extensive sequence of regionally significant glacial units underlies the upper glacial deposits in areas where bedrock is deeper (Misut and Monti 1999).

The surface aquifer is typically contained with the upper glacial deposits and the lower portion of the anthropogenic fill layer. Depth to groundwater varies from a few feet to about 30 feet and shallow groundwater in the historical data review area generally flows towards and discharges to Newtown Creek (Misut and Monti 1999).

9 NATURE AND EXTENT (CURRENT UNDERSTANDING OF ENVIRONMENTAL CONDITIONS)

9.1 Soil

Soil Investigations				☐ Yes	☒ No	
Bank Samples	☐ Yes	☐ No	☒ Not Applicable			
Soil-Vapor Investigations				☐ Yes	☒ No	

Soil investigation information was not found in reviewed documents.

9.2 Groundwater

Groundwater Investigations				☐ Yes	☒ No	
NAPL Presence (Historical and Current)				☐ Yes	☒ No	
Dissolved COPC Plumes				☐ Yes	☒ No	
Visual Seep Sample Data	☐ Yes	☐ No	☒ Not Applicable			

Groundwater investigation information was not found in reviewed documents.

9.3 Surface Water

Surface Water Investigation	☐ Yes	☒ No
SPDES Permit (Current or Past)	☐ Yes	☒ No
Industrial Wastewater Discharge Permit (Current or Past)	☐ Yes	☒ No
Stormwater Data	☐ Yes	☒ No
Catch Basin Solids Data	☐ Yes	☒ No
Wastewater Data	☐ Yes	☒ No

9.3.1 Stormwater and Wastewater Systems

Information regarding on-site stormwater infrastructure and management was not identified in documents available for review. The site is within the Bowery Bay WPCP sewershed. Stormwater and wastewater discharges from the site flow into a combined municipal sewer system. When the combined flows exceed the system's capacity, untreated CSOs are discharged through Outfall BB-026 to Dutch Kills, a tributary to the Newtown Creek study area (NYCDEP 2007).

9.4 Sediment

Creek Sediment Data	☐ Yes	☐ No	☒ Not Applicable

Sediment investigation information was not found in reviewed documents.

9.5 Air

Air Permit	☐ Yes	☒ No
Air Data	☐ Yes	☒ No

Information related to air emissions was not found in reviewed documents.

10 REMEDIATION HISTORY (INTERIM REMEDIAL MEASURES AND OTHER CLEANUPS)

Uniform Hazardous Waste Manifest forms (five total) document that drums of hazardous waste were removed from the site between 2007 and 2011 under RCRA generator ID number NYR000146043 (Con Edison 2011b). These forms indicate that the drums removed from the site contained unspecified benzene contaminated liquids (i.e., oil and water) and solids and unspecified lead debris. Specific information regarding remediation history of the site was not found in the reviewed documents.

11 BIBLIOGRAPHY/INFORMATION SOURCES

Con Edison (Consolidated Edison, Inc.), 2011a. Queen's Substation Blooms as Con Edison's Greenest. Con Edison Media Relations. September 22, 2011.

Con Edison, 2011b. Uniform Hazardous Waste Manifest Forms (2007-2011). Generator Site Identification Number NYR000146043. Forms: 003203410 FLE (July 26, 2011); 003206797 FLE (April 26, 2011); 001450210 FLE (June 14, 2007); 001451404 FLE (October 22, 2007); and 001436416 FLE (December 11, 2007).

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NYCDCP (New York City Department of City Planning), 2011a. Article IV: Manufacturing District Regulations. Updated: September 21, 2011. Accessed December 6, 2011. Available from: http://www.nyc.gov/html/dcp/html/zone/zonetext.shtml

NYCDCP, 2011b. Zoning and Land Use Mapping Tool. Updated: November 28, 2011. Accessed December 6, 2011. Available from: http://www.nyc.gov/html/dcp/

NYCDEP (New York City Department of Environmental Protection), 2007. *Landside Modeling Report*. City-Wide Long Term CSO Control Planning Project, Volume 2, Bowery Bay WPCP. Final. New York City Department of Environmental Protection, Bureau of Engineering Design and Construction. October 2007.

Sanborn (Sanborn Map Company), 1949. *Insurance Maps of the Borough of Queens, City of New York.* Volume 1: Sheet 49. Original 1915, revised 1949.

USEPA (U.S. Environmental Protection Agency), 2011. USEPA Envirofacts Database. Updated: November 11, 2011. Accessed December 6, 2011. Available from: http://www.epa.gov/enviro/index.html

12 ATTACHMENTS

Figure

Figure 1 Site Vicinity Map: Con Edison – Newtown Substation

Table

Table 1 Potential Areas of Concern and Transport Pathways Assessment

Table 1

Potential Areas of Concern and Transport Pathways Assessment – Con Edison – Newtown Substation

Potential Areas of Concern	Media Impacted					COPCs														Potential Complete Pathway						
						TPH			VOCs																		
Description of Areas of Concern	Surface Soil	Subsurface Soil	Groundwater	Catch Basin Solids	Creek Sediment	Gasoline-Range	Diesel – Range	Heavier – Range	Petroleum Related (e.g., BTEX)	VOCs	Chlorinated VOCs	SVOCs	PAHs	Phthalates	Phenolics	Metals	PCBs	Herbicides and Pesticides	Dioxins/Furans	Overland Transport	Groundwater	Direct Discharge – Overwater	Direct Discharge – Storm/Wastewater	Discharge to Sewer/CSO	Bank Erosion	Air Releases
Truck Leasing (unknown – 2006)	?	?	?	?	--	?	?	?	?	?	?	?	?	?	?	?	?	?	?	--	?	--	--	?	--	?
Electrical substation (2006 – present)	?	?	?	?	--	?	?	?	?	?	?	?	?	?	?	?	?	?	?	--	?	--	--	?	--	?
Spills	?	√	√	?	--	√	?	?	√	?	?	?	?	?	?	?	?	?	?	--	?	--	--	?	--	--
USTs	?	?	?	?	--	√	?	?	?	?	?	?	?	?	?	?	?	?	?	--	?	--	--	?	--	--

Notes:
√ – COPCs are/were present in areas of concern having a current or historical pathway that is determined to be complete or potentially complete.
? – There is not enough information to determine if COPC is/was present in area of concern or if pathway is complete.
-- – Current or historical pathways have been investigated and shown to be not present or incomplete.

BTEX – benzene, toluene, ethylbenzene, and xylene
COPC – constituent of potential concern
CSO – combined sewer overflow
PAH – polycyclic aromatic hydrocarbon
PCB – polychlorinated biphenyl
SVOC – semi-volatile organic compound
TPH – total petroleum hydrocarbon
VOC – volatile organic compound

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- USEPA Sample Locations (Surface and Subsurface)
- Shoreline (NYC Dept. of Information Technology, 2006)
- USGS Nat'l Elev. Dataset 5-foot Contours
- Selected Site Property Boundary
- Neighboring Site Property Boundary

Outfall Class

- Direct Discharge
- General
- Highway Drain
- Major Stormwater Outfall
- SPDES
- Storm Drain

NOTES:

1. Outfall Labeling: BB: Bowery Bay; NC(B/Q): Newtown Creek, Brooklyn/Queens; ST: Stormwater.
2. Outfall locations are preliminary, compiled, estimated data based on New York City Department of Environmental Protection (NYCDEP) maps and tabulated data and other resources. Many outfall locations were taken from the New York City Shoreline Survey Program: Newtown Creek Water Pollution Control Plant Drainage Area, NYCDEP, March 31, 2003. Other locations were taken from an excerpt from a similar report from 2008 (the complete report was not included in files available for review). Finally, some outfall locations were inherited from previous Anchor QEA and Newtown Creek Project work. Latitudinal and longitudinal data provided in the 2003 and 2008 NYCDEP reports were rounded to the nearest second. This resulted in potential outfall location discrepancies of up to approximately 200 feet. All outfall locations are currently under field verification.
3. Aerial Photos: New York State Division of Homeland Security and Emergency Services, 2010.
4. Site Boundaries are based on New York City parcels data.
5. Coarse topographic contours are derived from U.S. Geological Survey 10-meter data.

Feet

0 100 200 300 400

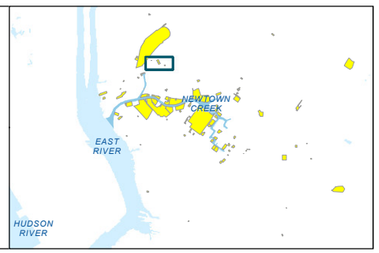

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Figure 1
Site Vicinty Map
Draft Upland Site Summary: Con Edison - Newtown Substation
Newtown Creek RI/FS